

IN THE CLAIMS:

Please cancel claims 72, 74, 76 to 79, 82 to 88, 98, 99, 113 and 114 without prejudice, add new claims 117 to 121, and amend the claims as follows:

Claims 1-72 (Canceled)

73. (Currently Amended) A purified antibody or functional fragment thereof comprising a light chain (V_L) variable region sequence and a heavy chain (V_H) variable region sequence, wherein said antibody or functional fragment specifically binds to an epitope of an antigen expressed by at least one of BXP-3 (ATCC Accession No. CRL-1687), 23132/87 (DSMZ Accession No. ACC 201), COLO-206F (DSMZ Accession No. ACC 21), COLO-699 (DSMZ Accession No. ACC 196), or LOU-NH91 (DSMZ Accession No. ACC 393) neoplastic cells, and wherein SAM-6 antibody comprising the amino acid sequences of SEQ ID NO:1 and SEQ ID NO:3 specifically binds to said epitope of the antigen expressed by at least one of said neoplastic cells.

74. (Cancel)

75. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said antibody or functional fragment specifically binds to an adenocarcinoma of the lung, a squamous cell lung carcinoma, an intestinal-type gastric carcinoma, a diffuse-type gastric carcinoma, an adenocarcinoma of the colon, an adenocarcinoma of the prostate, a squamous cell carcinoma of the esophagus, an adenocarcinoma of the esophagus, a lobular carcinoma of the breast, a ductal carcinoma of the breast, an adenocarcinoma of the pancreas, an adenocarcinoma of the ovary or an adenocarcinoma of the uterus.

76.-79. (Cancelled)

80. (Currently Amended) The purified antibody or functional fragment thereof according to Claim ~~[[72]]~~ 73, comprising SEQ ID NO:1 and SEQ ID NO:3.

81. (Currently Amended) The purified antibody or functional fragment thereof according to Claim ~~[[72]]~~ 73, wherein said functional fragment comprises SEQ ID NO:1 and SEQ ID NO:3.

82.-88. (Cancelled)

89. (Withdrawn) A cell expressing a polypeptide selected from the group consisting of:

said polypeptide comprising an amino acid sequence substantially identical to a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3 and a combination thereof, and wherein said polypeptide specifically binds to BXP-3 (ATCC Accession No. CRL-1687), 23132/87 (DSMZ Accession No. ACC 201), COLO-206F (DSMZ Accession No. ACC 21), COLO-699 (DSMZ Accession No. ACC 196), and LOU-NH91 (DSMZ Accession No. ACC 393) cells and not to a non-neoplastic cell;

said polypeptide comprising at least one complementary-determining regions (CDR) or functional fragments thereof comprising an amino acid sequence substantially identical to an amino acid sequence selected from the group consisting of [Ser-Gly-Asp-Lys-Leu-Gly-Asp-Lys-Tyr-Ala-Cys (CDR1) or Gln-Asp-Ser-Lys-Arg-Pro-Ser (CDR2) or Gln-Ala-Trp-Asp-Ser-Ser-Ile-Val-Val (CDR3) of SEQ ID NO:1], [Ser-Tyr-Ala-Met-His (CDR1) or Val-Ile-Ser-Tyr-Asp-Gly-Ser-Asn-Lys-Tyr-Tyr-Ala-Asp-Ser-Val-Lys-Gly (CDR2) or Asp-Arg-Leu-Ala-Val-Ala-Gly-Lys-Thr-Phe-Asp-Tyr (CDR3) SEQ ID NO:3] and a combination thereof; and,

said polypeptide comprising an amino acid sequence substantially identical to a sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3 and a combination thereof, wherein said polypeptide specifically binds to an adenocarcinoma of the lung, a squamous cell lung carcinoma, an intestinal-type gastric carcinoma, a diffuse-type gastric carcinoma, an adenocarcinoma of the colon, an adenocarcinoma of the prostate, a squamous cell carcinoma of the esophagus, an adenocarcinoma of the esophagus, an adenocarcinoma of the esophagus, a lobular carcinoma of the breast, a ductal carcinoma of the breast, an adenocarcinoma of the pancreas, an adenocarcinoma of the ovary and an adenocarcinoma of the uterus, and not to a non neoplastic cell.

90. (Withdrawn) A cell expressing a polypeptide comprising a sequence substantially identical to an amino acid sequence selected from the group consisting of SEQ ID NO:1, SEQ ID NO:3 and a combination thereof.

91. (Withdrawn) The cell expressing a polypeptide according to Claim 90, wherein said cell is a hybridoma.

92.-94. (Cancel)

95. (Withdrawn) An isolated nucleic acid molecule encoding a heavy or light chain variable region sequence of the antibody of claim 72.

96. (Withdrawn) The isolated nucleic acid molecule according to Claim 95, wherein said nucleic acid molecule is comprised within a vector.

97. (Withdrawn) The isolated nucleic acid molecule according to Claim 96, wherein said vector is comprised within a cell.

98.-99. (Cancelled)

100. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said ~~antibody or functional fragment includes an amino acid sequence of a variable region of a light chain (V_L)~~ light chain (V_L) variable region sequence is at least 80% identical to SEQ ID NO:1, and an ~~amino acid sequence of a variable region of a heavy chain (V_H)~~ wherein said heavy chain (V_H) variable region sequence is at least 80% identical to SEQ ID NO:3.

101. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said ~~antibody or functional fragment includes an amino acid sequence of a variable region of a light chain (V_L)~~ light chain (V_L) variable region sequence is at least 85% identical to SEQ ID NO:1, and an ~~amino acid sequence of a variable region of a heavy chain (V_H)~~ wherein said heavy chain (V_H) variable region sequence is at least 85% identical to SEQ ID NO:3.

102. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said ~~antibody or functional fragment comprises a sequence that~~ light chain (V_L) variable region sequence is at least 90% identical to the amino acid sequence of SEQ ID NO:1.

103. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said ~~antibody or functional fragment comprises a sequence that~~ heavy chain (V_H) variable region sequence is at least 90% identical to the amino acid sequence of SEQ ID NO:3.

104. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said ~~antibody or functional fragment includes an amino acid sequence of a variable region of a light chain (V_L)~~ light chain (V_L) variable region sequence is at least 95% identical to SEQ ID NO:1, and an ~~amino acid sequence of a variable region of a heavy chain (V_H)~~ wherein said heavy chain (V_H) variable region sequence is at least 90% identical to SEQ ID NO:3.

105. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said ~~antibody or functional fragment includes an amino acid sequence of a variable region of a light chain (V_L)~~ light chain (V_L) variable region sequence is at least 90% identical to SEQ ID NO:1, and ~~an amino acid sequence of a variable region of a heavy chain (V_H)~~ wherein said heavy chain (V_H) variable region sequence is at least 95% identical to SEQ ID NO:3.

106. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said ~~antibody or functional fragment includes an amino acid sequence of a variable region of a light chain (V_L)~~ light chain (V_L) variable region sequence is at least 95% identical to SEQ ID NO:1, and ~~an amino acid sequence of a variable region of a heavy chain (V_H)~~ wherein said heavy chain (V_H) variable region sequence is at least 95% identical to SEQ ID NO:3.

107. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, comprising ~~[[a]]~~ the functional fragment thereof.

108. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 107, wherein said functional fragment thereof is selected from the group consisting of ~~[[V_L, V_H]]~~ F_v, Fab, Fab' and F(ab')₂.

109. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said light chain variable region sequence has CDR sequences identical to CDR1, CDR2 and CDR3 of SEQ ID NO:1.

110. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said heavy chain variable region sequence has CDR sequences identical to CDR1, CDR2 and CDR3 of SEQ ID NO:3.

111. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said ~~antibody or functional fragment includes~~ at least one complementary-determining region (CDR) of said light chain (V_L) variable region sequence is identical to ~~an amino acid sequence selected from the group consisting of light chain variable region~~ CDRs [Ser-Gly-Asp-Lys-Leu-Gly-Asp-Lys-Tyr-Ala-Cys (CDR1) or Gln-Asp-Ser-Lys-Arg-Pro-Ser (CDR2) or Gln-Ala-Trp-Asp-Ser-Ser-Ile-Val-Val (CDR3) of SEQ ID NO:1], and heavy chain variable region wherein at least one complementary-determining region (CDR) of said heavy chain (V_H) variable region sequence is identical to CDRs [Ser-

Tyr-Ala-Met-His (CDR1) or Val-Ile-Ser-Tyr-Asp-Gly-Ser-Asn-Lys-Tyr-Tyr-Ala-Asp-Ser-Val-Lys-Gly (CDR2) or Asp-Arg-Leu-Ala-Val-Ala-Gly-Lys-Thr-Phe-Asp-Tyr (CDR3) SEQ ID NO:3].

112. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said antibody or functional fragment thereof is a monoclonal antibody.

113.-114. (Cancelled)

115. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said antibody or functional fragment thereof inhibits cell proliferation of 23132/87 (DSMZ Accession No. ACC 201) cells.

116. (Currently Amended) The purified antibody or functional fragment thereof according to Claim 73, wherein said antibody or functional fragment thereof induces apoptosis of at least one of BXPC-3 (ATCC Accession No. CRL-1687) and 23132/87 (DSMZ Accession No. ACC 201) cells.

117. (New) The purified antibody or functional fragment thereof according to Claim 73, wherein said light chain (V_L) variable region sequence is at least 75% identical to the amino acid sequence of SEQ ID NO:1.

118. (New) The purified antibody or functional fragment thereof according to Claim 73, wherein said heavy chain (V_H) variable region sequence is at least 75% identical to the amino acid sequence of SEQ ID NO:3.

119. (New) The purified antibody or functional fragment thereof according to Claim 73, wherein said light chain (V_L) variable region sequence is at least 80% identical to the amino acid sequence of SEQ ID NO:1.

120. (New) The purified antibody or functional fragment thereof according to Claim 73, wherein said heavy chain (V_H) variable region sequence is at least 80% identical to the amino acid sequence of SEQ ID NO:3.

121. (New) The purified antibody or functional fragment thereof according to Claim 73, wherein the antibody or functional fragment thereof is a monomeric or pentameric form.